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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,963	08/26/2005	Peter H Seeberger	MTV-055.01	4931

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EXAMINER

HENRY, MICHAEL C

ART UNIT	PAPER NUMBER
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1623

MAIL DATE	DELIVERY MODE
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09/30/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,963	Applicant(s) SEEBERGER ET AL.	
	Examiner MICHAEL C. HENRY	Art Unit 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/22/09.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-11 and 13-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3-11,13-26 and 31-38 is/are allowed.
- 6) ☒ Claim(s) 27-78 is/are rejected.
- 7) ☒ Claim(s) 29-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/22/09 has been entered.

The following office action is a responsive to the Amendment filed, 04/22/09

The amendment filed 04/22/09 affect the application, 10/520,963 as follows:

1. Claims 1 and 10 have been amended. New claim 38 has been added. Applicant's amendments have overcome the claims objections and rejections made under 35 U.S.C. 102(b). Consequently, the said claims objections and rejections are withdrawn. Upon further consideration it was determined that the indication of allowable subject matter with respect to claims 27-28 was not appropriate. Consequently, the said allowable subject is withdrawn. However, a new ground(s) rejection is set forth herein below.
2. The responsive to applicants' amendments is contained herein below.

Claims 1, 3-11, 13-38 are pending in application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

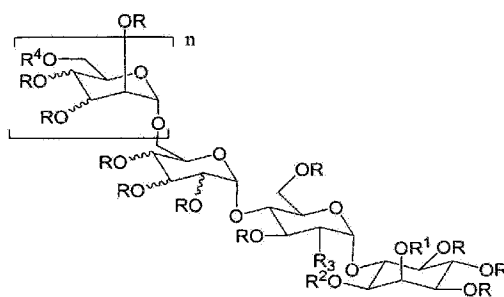
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable Jiang et al. (Chemical Communications (Cambridge) (1996), (18), 2193-2194).

Claim 27 is drawn to a method of preparing a tetrasaccharide, comprising the steps of:

covalently binding a mannopyranoside to a solid support, reacting said mannopyranoside with a mannopyranoside trichloroacetimidate to give a disaccharide bound to said solid support, reacting said disaccharide with a mannopyranoside trichloroacetimidate to give a trisaccharide bound to said solid support, reacting said trisaccharide with a mannopyranoside trichloroacetimidate to give a tetrasaccharide bound to said solid support, and cleaving said tetrasaccharide from said solid support.



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Claim 28 is drawn to said method wherein said mannopyranoside is bound to said solid support through a glycosidic linkage.

Jiang et al. disclose a method of preparing a tetrasaccharide comprising covalently binding a mannopyranoside to a support (i.e., low molecular MPEG as polymer support) to provide a first product (substrate), reacting said first product with a mannopyranoside trichloroacetimidate to give a disaccharide bound to said support, reacting said disaccharide with a mannopyranoside trichloroacetimidate to give a trisaccharide bound to said support, reacting said trisaccharide with a mannopyranoside trichloroacetimidate to give a tetrasaccharide bound to said support, and cleaving said tetrasaccharide from said support (see page 2194, scheme 3, see also last paragraph of page 2194).

The difference between applicants' claimed method and the method of Jiang et al. is form of support used.

It would have been obvious to one having ordinary skill in the art, at the time the claimed invention was made to use Jiang et al.'s method to prepare Jiang's et al.'s compound or

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composition and to use a any form of a support such as a solid support based on need such as the purity of the compound desired especially since for solid support the growing molecule is firmly attached to a completely insoluble solid support, purification is effected at each intermediate step merely by filtering and washing, and reaction rates can be increased by using a large excess of reagent which, after the reaction has gone to completion, can be easily separated .

One having ordinary skill in the art would have been motivated, to use Jiang et al.'s method to prepare Jiang's et al's compound or composition and to use a any form of a support such as a solid support based on need such as the purity of the compound desired especially since for solid support the growing molecule is firmly attached to a completely insoluble solid support, purification is effected at each intermediate step merely by filtering and washing, and reaction rates can be increased by using a large excess of reagent which, after the reaction has gone to completion, can be easily separated .

Allowable subject matter

The compounds of claim 1, 3-11, 13-18, 31-38 possess structural differences to the compounds of prior art documents and these differences are not suggested in the prior art, nor are obvious over the prior art. For example, the compounds of claim 10 contain different numbers of monosaccharide residues and different types of functional groups or moieties attached to their pyranose rings as compared to the compounds of the prior art. Similarly, the prior art does not teach or suggest the method recited in Claims 19-26. Claims 29-30 are objected to as being dependent on a rejected claim.

Response to Arguments

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Applicant's arguments with respect to claims 27-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Henry whose telephone number is 571-272-0652. The examiner can normally be reached on 8.30am-5pm; Mon-Fri. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael C. Henry
September 21, 2009.

/Shaojia Anna Jiang/
Supervisory Patent Examiner
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